

# Table of Contents

---

	Page
<b>Executive Summary</b> .....	ES-1
<b>Chapter 1. Introduction</b> .....	1-1
Background on Biosolids Management in California .....	1-1
Existing Regulations for Land Application of Biosolids .....	1-2
Purpose of the Statewide Program EIR .....	1-3
The Scoping Process .....	1-4
Notice of Preparation .....	1-4
Other Scoping Activities .....	1-5
Issues to Be Addressed in the EIR .....	1-6
Public Involvement .....	1-7
Post-Certification Litigation .....	1-7
Terminology .....	1-8
Report Organization .....	1-9
Agencies That Will Use This Document .....	1-10
Anticipated Conditions Following Adoption of the GO .....	1-10
<b>Chapter 2. Program Description</b> .....	2-1
Background on Biosolids Generation, Disposal, and Reuse .....	2-1
Existing and Projected Biosolids Land Application in California .....	2-1
Existing Regulatory Programs .....	2-5
State Programs—Role of RWQCBs .....	2-6
Federal Programs—Part 503 Regulations .....	2-6
Local Programs—County Ordinances .....	2-9
General Order Program Objectives .....	2-9
Comply with California Water Code and Judicial Order .....	2-10
Provide Regulatory Framework for RWQCB Permit Process .....	2-10
Provide Flexible Regulatory Framework .....	2-11
Description of General Order .....	2-11
Overview .....	2-11
Applicability .....	2-11
Relationship of the GO to Part 503 Regulations .....	2-13
Discharge Prohibitions of the GO .....	2-14
Discharge Specifications of the GO .....	2-15
Storage and Transportation .....	2-16
Provisions .....	2-16

GO Exclusion Areas .....	2-17
<b>Chapter 3. Soils, Hydrology, and Water Quality .....</b>	<b>3-1</b>
Environmental Setting .....	3-1
Soils .....	3-1
Hydrology .....	3-5
Water Quality .....	3-6
Regulatory Setting .....	3-19
Key Policies, Laws, and Programs .....	3-19
Impacts and Mitigation Measures .....	3-25
Approach and Methods .....	3-25
Thresholds of Significance .....	3-25
Impacts of Agricultural Use .....	3-26
Impacts of Other Activities .....	3-36
<b>Chapter 4. Land Productivity .....</b>	<b>4-1</b>
Introduction .....	4-1
Environmental Setting .....	4-2
Impacts and Mitigation Measures .....	4-2
Thresholds of Significance .....	4-2
Impacts of Agricultural Use .....	4-3
Impacts of Other Activities .....	4-15
<b>Chapter 5. Public Health .....</b>	<b>5-1</b>
Environmental Setting .....	5-5
Introduction .....	5-5
Pathogens .....	5-6
Non-Pathogenic Contaminants .....	5-11
Routes and Pathways of Contact .....	5-17
Potential Health Effects from Direct Ingestion or Intake of Foods Related to Biosolids .....	5-23
Regulatory Setting .....	5-24
Waste Discharge Requirements .....	5-25
National Pollutant Discharge Elimination System Permits .....	5-25
California Hazardous Waste Control Law .....	5-25
Discharge of Waste to Land .....	5-26
Regulatory Requirements for Composting Operations .....	5-26
Source Reduction and Recycling .....	5-27
Safe Drinking Water and Toxic Enforcement Act (Health and Safety Code Section 25249.5) .....	5-27
Ambient Water Quality Criteria for the Protection of Human Health .....	5-27
Ambient Air Quality and Air Toxics .....	5-28
State Health and Safety Code and California Food and Agricultural Code .....	5-28
California Occupational Safety and Health Act Requirements .....	5-29
Food Safety .....	5-29
Impacts and Mitigation Measures .....	5-30

Approach and Methods . . . . .	5-31
Thresholds of Significance . . . . .	5-32
Impacts of Agricultural Use . . . . .	5-33
Impacts of Other Activities . . . . .	5-47
<b>Chapter 6. Land Use and Aesthetics . . . . .</b>	<b>6-1</b>
Environmental Setting . . . . .	6-1
Regional Settings . . . . .	6-1
Physical Setting . . . . .	6-2
Regulatory Setting . . . . .	6-4
County Land Use Regulations and Ordinances . . . . .	6-4
Site-Specific Waste Discharge Requirements . . . . .	6-4
Impacts and Mitigation Measures . . . . .	6-5
Approach and Methods . . . . .	6-5
-Thresholds of Significance . . . . .	6-6
Impacts of Agricultural Use . . . . .	6-6
Impacts of Other Activities . . . . .	6-9
<b>Chapter 7. Biological Resources . . . . .</b>	<b>7-1</b>
Environmental Setting . . . . .	7-1
Agricultural Activities . . . . .	7-2
Silvicultural Activities . . . . .	7-3
Horticultural Activities . . . . .	7-5
Land Reclamation Activities . . . . .	7-5
Regulatory Setting . . . . .	7-6
Federal Endangered Species Act . . . . .	7-6
Federal Migratory Bird Treaty Act . . . . .	7-7
Bald and Golden Eagle Protection Act . . . . .	7-7
California Endangered Species Act . . . . .	7-7
Clean Water Act, Section 404 . . . . .	7-8
Impacts and Mitigation Measures . . . . .	7-9
Approach and Methods . . . . .	7-9
Thresholds of Significance . . . . .	7-9
Impacts of Agricultural and Horticultural Use . . . . .	7-11
Impacts of Other Activities . . . . .	7-14
<b>Chapter 8. Fish . . . . .</b>	<b>8-1</b>
Environmental Setting . . . . .	8-1
Regions 1-4, 8, and 9: Pacific Coast . . . . .	8-1
Region 5: Western Sierra Nevada and Central and San Joaquin Valleys . . . . .	8-2
Regions 6 and 7: Eastern Sierra Nevada, Great Basin, and Colorado River . . . . .	8-2
Impacts and Mitigation Measures . . . . .	8-3
Approach and Methods . . . . .	8-3
Thresholds of Significance . . . . .	8-4
Impacts of Agricultural Use . . . . .	8-4
Impacts of Other Activities . . . . .	8-5

<b>Chapter 9. Traffic</b>	.....	9-1
Environmental Setting	.....	9-1
State Highway System	.....	9-1
Local Roadway System	.....	9-2
Regulatory Setting	.....	9-2
Impacts and Mitigation Measures	.....	9-3
Approach and Methods	.....	9-3
Thresholds of Significance	.....	9-3
Impacts of Agricultural Use	.....	9-4
Impacts of Other Activities	.....	9-5
<b>Chapter 10. Air Quality</b>	.....	10-1
Environmental Setting	.....	10-1
Pollutants of Concern	.....	10-1
California Climate and Meteorology	.....	10-3
Regulatory Setting	.....	10-3
Federal Regulatory Environment	.....	10-3
California Regulatory Environment	.....	10-4
Local Air Quality Regulatory Environment	.....	10-5
Impacts and Mitigation Measures	.....	10-5
Methods	.....	10-5
Thresholds of Significance	.....	10-6
Impacts of Agricultural Use	.....	10-7
Impacts of Other Activities	.....	10-8
<b>Chapter 11. Noise</b>	.....	11-1
Environmental Setting	.....	11-1
Noise-Sensitive Land Uses	.....	11-1
Existing Noise Conditions	.....	11-1
Regulatory Setting	.....	11-2
Impacts and Mitigation Measures	.....	11-3
Approach and Methods	.....	11-3
Thresholds of Significance	.....	11-5
Impacts of Agricultural Use	.....	11-5
Impacts of Other Activities	.....	11-6
<b>Chapter 12. Cultural Resources</b>	.....	12-1
Setting	.....	12-1
Prehistoric Setting	.....	12-1
Ethnographic Setting	.....	12-1
Historic Setting	.....	12-2
Regulatory Setting	.....	12-3
Impacts and Mitigation Measures	.....	12-3
Approach and Methods	.....	12-3
Thresholds of Significance	.....	12-4
Impacts of Agricultural Use	.....	12-4
Impacts of Other Activities	.....	12-6

<b>Chapter 13. Cumulative Impacts</b>	.....	13-1
Overview of Cumulative Impacts Analysis	.....	13-1
Approach	.....	13-1
Impacts	.....	13-2
Groundwater Quality	.....	13-2
Biological Resources	.....	13-5
Air Quality	.....	13-6
Transportation	.....	13-6
<b>Chapter 14. Alternatives Analysis</b>	.....	14-1
Alternatives to the Issuance of the General Order	.....	14-2
No-Project Alternative	.....	14-2
Modified GO Provisions and Specifications Alternative	.....	14-3
Land Application Ban Alternative	.....	14-4
Class A Only Alternative	.....	14-5
Possible Treatment Technologies	.....	14-9
Energy Consumption	.....	14-13
Table 14-1. Conversion of Class B Biosolids to Class A	.....	14-13
Technology	.....	14-13
Food Crop Limitation Alternative	.....	14-13
Alternatives Considered but Rejected	.....	14-21
Impact Comparison	.....	14-24
No-Project Alternative	.....	14-24
Soils, Hydrology, and Water Quality	.....	14-24
Land Productivity	.....	14-25
Public Health	.....	14-25
Land Use and Aesthetics	.....	14-25
Biological Resources	.....	14-26
Fish	.....	14-26
Traffic	.....	14-26
Air Quality	.....	14-26
Noise	.....	14-27
Cultural Resources	.....	14-27
Modified GO Provisions and Specifications Alternative	.....	14-27
Soils, Hydrology, and Water Quality	.....	14-27
Land Productivity	.....	14-28
Public Health	.....	14-28
Land Use and Aesthetics	.....	14-28
Biological Resources	.....	14-29
Fish	.....	14-29
Traffic	.....	14-29
Air Quality	.....	14-29
Noise	.....	14-30
Cultural Resources	.....	14-30
Land Application Ban Alternative	.....	14-30
Soils, Hydrology, and Water Quality	.....	14-30
Land Productivity	.....	14-31

Public Health	14-31
Land Use and Aesthetics	14-32
Biological Resources	14-32
Fish	14-32
Traffic	14-33
Air Quality	14-33
Noise	14-33
Cultural Resources	14-34
Class A Only Alternative	14-34
Soils, Hydrology, and Water Quality	14-34
Land Productivity	14-35
Public Health	14-35
Land Use and Aesthetics	14-35
Biological Resources	14-35
Fish	14-35
	14-35
Traffic	14-35
Air Quality	14-37
Noise	14-37
Cultural Resources	14-37
Cumulative Impacts	14-37
Food Crop Limitation Alternative	14-37
Soils, Hydrology, and Water Quality	14-38
Land Productivity	14-38
Public Health	14-39
Land Use and Aesthetics	14-39
Biological Resources	14-39
Fish	14-39
Traffic	14-40
Air Quality	14-40
Noise	14-40
Cultural Resources	14-41
Cumulative Impacts	14-41

<b>Chapter 15. Mitigation Monitoring Program</b>	15-1
--	------

<b>Chapter 16. Citations</b>	16-1
------------------------------	------

<b>Chapter 17. Report Preparation</b>	17-1
---------------------------------------	------

**Appendix A. Draft Text of the General Order**

**Appendix B. Notice of Preparation and Distribution List**

**Appendix C. Existing Regulatory Programs for Biosolids Land Application**

**Appendix D. Soils, Hydrology, and Water Quality Technical Appendix**

**Appendix E. Public Health Technical Appendix**

**Appendix F. Information on Special-Status Species**

**Appendix G. Background Information on Acoustics**

**Appendix H. Land Application of Biosolids – Excerpt from the U.S. EPA’s *A Plain English Guide to the EPA Part 503 Biosolids Rule***